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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,563	08/30/2001	Maria-Jose Arbulu Barturen	FR920010023US1	2529

26502 7590 06/16/2005

IBM CORPORATION
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EXAMINER

PHAM, CHRYSTINE

ART UNIT	PAPER NUMBER
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2192

DATE MAILED: 06/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/943,563

Applicant(s)

BARTUREN ET AL.

Examiner

Chrystine Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to Amendment filed on March 10th 2005. Claim 6 has been amended. Claims 12-17 are new claims. Claims 1-17 are presented for examination.

Response to Arguments

2. Applicant's arguments filed March 10th 2005 have been fully considered but they are not persuasive.

First, the Applicants use the attached Figure 1, which is a diagram of the integrated data processing system, as a basis to argue that Apfel does not teach various instances of the claimed "sub-system". It is noted that, none of the various instances of the "sub-system" is claimed as being a physical or concrete machine. Therefore, it is submitted that, each of the various instances of the "sub-system", as claimed, can at best be interpreted as a software sub-step, sub-routine, or sub-process that performs a particular task/action (e.g., "identifying within the central repository software components of software product to be delivered") which is part of the claimed "process of delivering of software products to target software product execution units".

The Applicants essentially contend that Apfel does not teach the system of claim 1. More specifically, the Applicants argue that Apfel does not teach the "second sub-system for creating at least one software product package from the identified software components identified by the first sub-system". As has been established in previous Office Action, the "first sub system for identifying within the central repository software components of software product to be delivered" is anticipated by the database query (i.e., software sub-process or sub-system) which is transmitted from the target software product execution unit (i.e., computer in which to update or install software product) to the database server (see at least *query 100* FIG.3 & associated text; *database query, database lookup* col.2:29-45; col.8:39-67). As disclosed by Apfel, the database query includes versions of the program module components to be upgraded, the platform (i.e., operating system) on which the components are running. The database query is processed by

the database server to determine whether an upgrade package for the component is available. The upgrade package is stored in the package server (i.e., "central repository"). In col.9:35-41, Apfel discloses using information received in the database query (i.e., versions of the program components, and operating system on which the components are running) to determine whether upgrade package is available. In the same passage, Apfel further discloses providing different update packages for different version combinations, different operating systems. It is clear that the update packages for different version combinations and different operating systems (as identified by the database query or "first sub-system") have to be created in order to meet the update demand of target software execution units. In col.9:41-65, Apfel further discloses, upon determining that the upgrade is not available, the database server returns a "NOUPDATE" message with an encoded date to the execution unit. The encoded date will be the new date that the upgrade package (corresponding the software components identified by first sub-system) is expected to be available. Thus, it is clear that Apfel teaches a "second sub-system for creating at least one software product package from the identified software components identified by the first sub-system".

In response to Applicants' remark that [the First Office Action] "cites the Package Server of Apfel as disclosing the Third Sub-System of Claim 1" (page 9 of 13), it is noted that the first Office Action specifically cites 115 of FIG.3, FIG.4A, FIG.4B, and col.1:6-13 as disclosing the "third sub-system". It is submitted that 115 of FIG.3 is a step of sending (i.e., distributing) the update package to the execution unit, and installing the update package. Sub-steps 451 and 454 of FIG.4B clearly teach distributing and installing the upgrade package in the execution unit. Thus, it is submitted that, Apfel clearly teaches a "third sub-system for distributing the at least one software product package created by the second sub-system to the target software product execution units".

In response to Applicants' argument that since the Apfel's Package Server comprises "software components of at least one software package", the Package Server does not teach "a software package distribution repository for storing the at least one software product package created by the second sub-system from the identified software components", it is submitted that the Package Server stores upgrade packages (i.e., software products/packages). Each upgrade package is comprised of one or more program/software components identified by the second sub-system (see at least *upgrade, program modules* col.6:45-50; *query, versions of program module components, Web Authoring Components program module, word processor program module, HTML converter* col.8:50-67). As established in the first Office Action, the Package Server also store software components which are identified and downloaded to the execution units (see at least *program module components, package server* col.6:18-25). Thus, not only does Package Server teaches "storing software components of at least one software product", it anticipates "a software package distribution repository for storing the at least software product package created by the second sub-system from the identified software components".

In response to Applicants' argument that Apfel does not teach execution units that belong "to at least one environment according to at least one role assigned to the at least one software product package by the second sub-system", it is submitted that, as established above, Apfel clearly teaches a "second sub-system for creating at least one software product package from the identified software components identified by the first sub-system". The Applicants are reminded that the software product packages are created for different software versions and different operating systems (i.e., "environment"). In other words, each software product package is associated with an operating system on which it is to run (i.e., "assigned a role"). It is inherent that each execution unit belongs to an operating system (i.e., "environment"). It is submitted that Apfel clearly anticipates "execution units that belong to at least one environment according to at least one role assigned to the at least one software product package by the second sub-system".

In response to Applicants' argument that Apfel does not teach "a fourth sub-system for performing a building process of software code components", it is submitted that in order to provide the "executable upgrade package" as disclosed by Apfel in col.10:61-63, a sub-step (i.e., "fourth sub-system") must be inherent in order to link (i.e., building process) various program components to make up the "executable upgrade package".

In response to Applicants' argument that Apfel does not teach "a fifth sub-system for managing a process of applying changes to an already delivered software product", it is submitted that "a process of applying changes to an already delivered software product" is merely a process of installing upgrade packages for software components residing on a user's computer. Thus, a sub-step (i.e., "a fifth sub-system") for managing this process is clearly anticipated by Apfel as has been established in the first Office Action.

With respect to claims 8-11, which recite limitations addressed in claims 1-3, 5, therefore are also anticipated by Apfel as discussed above.

3. In view of the foregoing discussion, rejection of claims 1-11 under 35 USC 102(b) is considered proper and maintained.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-15, 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Apfel et al. (US 5974454), hereinafter, *Apfel et al.*.

Claim 1

Apfel et al. teach an integrated data processing system (e.g., see FIG.2, FIG.3, FIG.4A, FIG.4B & associated text) for managing a process (i.e., method) of delivery of software products (e.g., see Abstract) to target software product execution units (e.g., see *personal computer 20* FIG.1 & associated text; see *personal computer 20, end-user station 88a* FIG.2 & associated text; see *end-user stations* col.6:3-17) in a network environment (e.g., see *Internet 60* FIG.2 & associated text; see *personal computer 20, remote computers 49* col.4:60-5:5), comprising:

- a central repository for storing software components at least one software product (e.g., see *PACKAGE SERVER 80b* FIG.2 & associated text; see *repositories* col.5:62-65; col.6:20-26);
- a first sub-system for identifying within the central repository software components of software product to be delivered (i.e., first sub-system manages storage in the central repository of the software components software product to be delivered) (e.g., see *query 100* FIG.3 & associated text; see *upgrade package message, URL, package server, database query, database lookup* col.2:36-50; col.6:45-59; see *upgrade* col.7:13-20);
- a second sub-system for creating at least one software product package from the identified software components identified by the first sub-system (e.g., col.9:35-41; *database query, version, platform, database server* col.2:29-47; *query* col.8:53-67), and
- a third sub-system for distributing the least one software product package created by the second sub-system to the target software product execution units and installing the software product package thereon (e.g., see *115* FIG.3 & associated text; see FIG.4A, *451, 454* FIG.4B & associated text; see Abstract; col.1:6-13).

Claim 2

The rejection of base claim 1 is incorporated. *Apfel et al.* further teach a software package distribution repository for storing the at least one software product package created by the second

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sub-system from the identified software components (e.g., see *PACKAGE SERVER 80b* FIG.2 & associated text; col.5:20-27).

Claim 3

The rejection of base claim 1 is incorporated. *Apfel et al.* further teach the third sub-system distributes the at least one software product package to target software product execution units belonging to at least one environment according at least one role assigned the least one software product package by the second sub-system (e.g., see *configuration of computer 20, different upgrade package* col.6:65-67; *type of operating system, upgrade package URL, query* col.8:52-9:5; col.9:35-42).

Claim 4

The rejection of base claim 1 is incorporated. Claim recites limitations, which have been addressed in claim 1, therefore, is rejected for the same reasons as cited in claim 1.

Claim 5

The rejection of base claim 1 is incorporated. *Apfel et al.* further teach a fourth sub-system for performing a building process of software code components among the identified software components of the software product be delivered, the fourth sub-system storing result of building process in the central repository (i.e., building identified source code components of the software product delivered stored the central repository, and storing the result the building the central repository) (e.g., col.9:35-41; see step 451 FIG.4B & associated text; see *executable upgrade package* col.10:61-63).

Claim 6

The rejection of base claim 1 is incorporated. *Apfel et al.* further teach a fifth sub-system managing a process applying changes (i.e., new version) to at least one software product distributed

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by the third sub-system (e.g., see *upgrade package* col.2:52-57; see step 454 FIG.4B & associated text; see *upgraded versions* col.5:20-27; see 115 FIG.3 & associated text; col.7:55-col.8:6).

Claim 7

The rejection of base claim 1 is incorporated. *Apfel et al.* further teach a sixth sub-system for recording information provided by at least one of the first through fifth sub-systems the integrated data processing system during delivery of the software product (e.g., see steps 421, 430, 431 FIG.4A & associated text; see *error message* col.9:15-20; see “*NOUPDATE*” message col.9:42-48).

Claim 8

Claim recites a method for delivering software products to target software product execution units in a network environment as have been addressed in claim 1, therefore, is rejected for the same reasons as cited in claim 1.

Claim 9

The rejection of base claim 8 is incorporated. Claim recites limitations, which have been addressed in claim 3, therefore, is rejected for the same reasons as cited in claim 3.

Claim 10

The rejection of base claim 8 is incorporated. Claim recites limitations, which have been addressed in claim 2, therefore, is rejected for the same reasons as cited in claim 2.

Claim 11

The rejection of base claim 10 is incorporated. Claim recites limitations, which have been addressed in claim 5, therefore, is rejected for the same reasons as cited in claim 5.

Claim 12

Apfel et al. teach a method of developing and installing a software product on a plurality of target computers, the method comprising:

- storing a plurality of components in a central repository (see “central repository” claim 1);
- using at least some of the plurality of stored components to build the software product (see “second sub-system” claim 1);
- storing the built software product in the central repository (see “software product package distribution repository” claim 2)
- creating an installable software package that includes at least some of the plurality of components and the built software product (see “third sub-system” claim 1);
- storing the installable software package in a second repository (see at least *URL, upgrade package, alternative download site, package server* col.6:60-col.7:1-10);
- distributing the installable software package to at least some of the plurality of target computers (see “target software product execution units”, “third sub-system” claim 1);
- installing the distributed installable software package on the at least some of the plurality of target computers (see “target software product execution units”, “third sub-system” claim 1);

Claim 13

The rejection of base claim 12 is incorporated. *Apfel et al.* further teach wherein software product comprises a newly developed software product (see at least *new software program module components* col.1:5-12).

Claim 14

The rejection of base claim 12 is incorporated. Claim recites limitations, which have been addressed in claim 6, therefore, is rejected for the same reasons as cited in claim 6.

Claim 15

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The rejection of base claim 12 is incorporated. *Apfel et al.* further teach recording information regarding the software product in a tracking sub-system (see at least *new date, registry key, upgraded software* col.2:50-61).

Claim 17

The rejection of base claim 12 is incorporated. *Apfel et al.* further teach providing a configuration management subsystem that controls and manages different versions of the software components stored in the central repository (see at least col.9:28-42).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Apfel et al.* in view of *Albright et al.* (*Albright*, US 6110228).

Claim 16

The rejection of base claim 12 is incorporated. *Apfel et al.* do not expressly disclose wherein the built software product comprises execution code that is generated from a source code component stored in the central repository. However, *Albright* discloses a method of installing updated executable code (i.e., built software product) in target computers wherein the executable code is generated from a source code component stored in the central repository (see *central software service site, customer, remote location, updated executable code, installing fixes, source code, program product* in Abstract). *Apfel et al.* and *Albright* are analogous art because they are both directed to distributing and installing software

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upgrades in target computers. It would have been obvious to one of ordinary skill in the pertinent art at the time the invention was made to incorporate the teaching of *Albright* into that of *Apfel et al.* for the inclusion of generating execution code from source code stored in central repository. And the motivation for doing so would have been to eliminate the necessity of including within the software upgrade (to be distributed and installed in target computers) many lines of [source] code that are dedicated only to permitting the target computers to add software upgrade, thus improving the efficiency of the upgrading process (see *Albright* col.3:1-30).

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

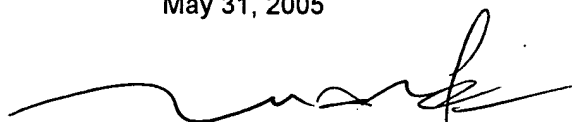
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chrystine Pham whose telephone number is 571.212.3702. The examiner can normally be reached on Mon-Fri, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q Dam can be reached on 571.272.3695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CP
May 31, 2005

A handwritten signature in black ink, appearing to read 'Tuan Dam', written over a horizontal line.

TUAN DAM
SUPERVISORY PATENT EXAMINER